AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1 (currently amended): A method for producing a transgenic cotton plant comprising the steps of:

(a) obtaining cotton petiole explants,

(b) exposing the petiole explants to a culture of *Agrobacterium tumefaciens* that harbors a vector comprising an exogenous gene and a selectable marker gene, the *Agrobacterium* being capable of effecting the stable transfer of the exogenous gene and selectable marker gene to the genome of the cells of the petiole explant,

(c) culturing the petiole explants in medium containing one or more plant hormones to induce callus formation, wherein the one or more plant hormones is 2,4-dichlorophenoxyacetic acid at a concentration up to about 0.5 mg/l and kinetin at a concentration up to about 1 mg/l,

(d) selecting a transformed callus that expresses the exogenous gene,

(e) culturing the selected callus in suspension culture to induce formation of embryogenic calli,

(f) culturing the embryogenic calli to induce formation of embryoids, and

(g) germinating an embryoid to obtain a young transgenic cotton plant.

Claim 2 (previously presented): The method of claim 1, wherein the petiole explants are pre-cultured for a period of time prior to exposure to the culture of *Agrobacterium tumefaciens*.

Claim 3 (previously presented): The method of claim 1, wherein the culture media used in steps (b)-(g) have glucose as the sole carbon source.

Claim 4 (previously presented): The method of claim 3, wherein the glucose is at a concentration of about 10 g/l to about 50 g/l.

Claim 5 (previously presented): The method of claim 4, wherein the glucose is at a concentration of about 30 g/l.

Claim 6 (previously presented): The method of claim 1, wherein the culture media used in steps (b) and (d)-(g) do not contain hormones.

Claim 7 (previously presented): The method of claim 1, wherein embryoid germination of step (g) is carried out in a medium having a source of nitrogen selected from the group consisting of asparagine, glutamine or both asparagine and glutamine.

Claim 8 (previously presented): The method of claim 7, wherein the source of nitrogen is at a concentration of about 700 mg/l to about 5 g/l.

Claim 9 (previously presented): The method of claim 7, wherein the medium further contains KNO_3 as a source of nitrogen at a concentration of about 3.8 g/l.

Claim 10 (previously presented): The method of claim 7, wherein the source of nitrogen is both asparagine and glutamine, and the asparagine is at a concentration of about 200 mg/l to about 1 g/l and the glutamine is at a concentration of about 500 mg/l to about 2 g/l.

Claim 11 (previously presented): The method of claim 10, wherein the asparagine is at a concentration of about 500 mg/l and the glutamine is at a concentration of about 1 g/l.

Claim 12 (previously presented): The method of claim 1, wherein the suspension culture of step (e) has a duration of less than about 20 days.

Claim 13 (previously presented): The method of claim 12, wherein the suspension culture of step (e) has a duration of about 10 days to about 20 days.

Claim 14 (previously presented): The method of claim 13, wherein the suspension culture of step (e) has a duration of about 14 days.

Claims 15-17 (canceled).

Claim 18 (currently amended): The method of claim ~~17~~ 1, wherein the 2,4-dichlorophenoxyacetic acid is at a concentration of about 0.05 mg/l and the kinetin is at a concentration of about 0.1 mg/l.

Claim 19 (previously presented): A method for producing a transgenic cotton plant comprising the steps of:

(a) obtaining tender petiole explants from cotton plants,

(b) exposing the petiole explants to a culture of *Agrobacterium tumefaciens* that harbors a vector comprising an exogenous gene and a selectable marker gene, the *Agrobacterium* being capable of effecting the stable transfer of the exogenous gene and selectable marker gene to the genome of the cells of the petiole explant,

(c) culturing the petiole explants to induce callus formation in medium containing about 0.05 mg/l 2, 4-dichlorophenoxyacetic acid and about 0.1 mg/l kinetin,

(d) selecting a transformed callus that expresses the exogenous gene,

(e) culturing the selected callus in suspension culture containing no added plant hormones to induce formation of embryogenic calli,

(f) culturing the embryogenic calli to induce formation of embryoids, and

(g) germinating an embryoid to obtain a young transgenic cotton plant on a medium containing KNO_3 at a concentration of 3.8 mg/l.

Claim 20 (previously presented): The method of claim 1 which further comprises:

(h) growing the young transgenic cotton plant to produce a transgenic cotton plant capable of growth in soil.

Claim 21 (previously presented): The method of claim 20, wherein the young plants are grown on a medium containing glucose and sucrose as the carbon source.

Claim 22 (previously presented): The method of claim 21, wherein the medium contains about 10 g/l of each of the glucose and the sucrose.

Claim 23 (previously presented): The method of claim 19 which further comprises:

(h) growing the young transgenic cotton plant to produce a transgenic cotton plant capable of growth in soil.

Claim 24 (previously presented): The method of claim 23, wherein the young plants are grown on a medium containing glucose and sucrose as the carbon source.

Claim 25 (previously presented): The method of claim 24, wherein the medium contains about 10 g/l of each of the glucose and the sucrose.

Claim 26 (previously presented): The method of claim 19, wherein the embryoid germination medium contains a further source of nitrogen selected from the group consisting of asparagine, glutamine or both asparagine and glutamine.

Claim 27 (previously presented): The method of claim 26, wherein the asparagine is at a concentration of about 500 mg/l and the glutamine is at a concentration of about 1 g/l.

Claim 28 (previously presented): The method of claim 19, wherein the suspension culture of step (e) has a duration of less than about 20 days.

Claim 29 (previously presented): The method of claim 28, wherein the suspension culture of step (e) has a duration of about 10 days to about 20 days.

Claim 30 (previously presented): The method of claim 28, wherein the suspension culture of step (e) has a duration of about 14 days.